## **SUFFOCATION**



## Summary<sup>1</sup>

Suffocation is the second leading cause of injury death for Washington children 0-17 years old. Suffocation death rates were highest in two subgroups of children younger than 18: 0-4 years old and 15-17 years old. Suffocation was more common among males than females, especially for males 15-17 years old. The majority of suffocation deaths among Washington infants occurred while co-sleeping with a parent or sibling. The majority of suffocation deaths among Washington children 15-17 years old were caused by self-inflicted strangulation from hanging.

Suffocation injuries can be prevented by putting infants to sleep in an appropriate crib environment, supervising infants while eating, ensuring children play with age-appropriate toys, and promoting caregiver awareness of suffocation risk for young children. For suicide prevention strategies, see the Suicide chapter.

# REAL STORIES OF SUFFOCATION INVOLVING WASHINGTON CHILDREN

Emily, 3 months old, died of positional asphyxia after she became wedged between the mattress and wall. She was co-sleeping on a queen size bed with her parents who had been drinking alcohol and smoking marijuana earlier that night.

Jocelyn, 9 months old, died after her portable crib collapsed on top of her. The crib was handed down to the family by friends, and unknown to the family, had been recalled by the U. S. Consumer Product Safety Commission several years earlier.

Adam, age 6, was pretending he was an animal with a leash around its neck; he slipped and hung himself from the top bunk of his bed with the sash of a robe.

mean that hinder breathing (e.g., plastic bag over nose or mouth, suffocation by bedding, and unintentional or intentional hanging or strangulation).

<sup>&</sup>lt;sup>1</sup> Suffocation is defined as death due to oxygen deprivation from mechanical causes. There are two major ways in which suffocation causes deaths: (1) by the inhalation or ingestion of food or other objects that block respiration and (2) by other mechanical

- Place infants to sleep on their backs on a firm, flat, tight-fitting crib mattress in a crib that meets national safety standards.
  Remove pillows, comforters, toys, and other soft products from the crib. Consider using a sleeper instead of a blanket. If a blanket is used, tuck the blanket around the crib mattress, covering baby only as high as his/her chest. A fitted bottom sheet specifically made for a crib should be used.
  Nothing should hang above a crib with string or ribbon that is longer than seven inches.
- If parents choose to co-sleep with their infant, they should not co-sleep with their infant on a couch, or after using alcohol or other drugs. The Consumer Product Safety Commission and the Academy of Pediatrics do not recommend co-sleeping with an infant.
- Check for recalled cribs, playpens, high chairs, changing tables, strollers, and other nursery products! Visit the Consumer Product Safety Commission's website (www.cpsc.gov) to check for recalled products and learn how to repair or replace the recalled item.
- Always supervise young children while they are eating or playing. Avoid giving infants round or hard foods to eat like nuts, raw

- carrots, popcorn, seeds, or hard candy. Hot dogs and grapes are okay if the skin is removed and the food is chopped into small, non-round pieces. Small items such as coins, safety pins, jewelry and buttons should be kept out of children's reach. Learn First Aid and CPR.
- Use the "toilet paper roll rule": toys or items that fit through a cardboard toilet paper roll are too small for young children. Ensure that children play with age-appropriate toys according to safety labels. Inspect old and new toys regularly for damage. Make any necessary repairs or discard damaged toys.
- Remove hood and neck drawstrings from all children's outerwear, such as jackets and sweatshirts. To prevent strangulation, never allow children to wear necklaces, purses, scarves, or clothing with drawstrings while on playgrounds.
- Tie up all window blind and drapery cords or cut the ends and retrofit with safety tassels.
- Keep plastic shopping, garbage, and dry cleaning bags away from babies and children. Never use a plastic shopping bag or other plastic film as a mattress cover.
- See the Suicide chapter for suicide prevention strategies.

### Prevention Strategies for Communities

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- Educate families about suffocation hazards and recalled products.
- Arrange for a speaker from the Red Cross, fire department, emergency medical service, or hospital to teach parents CPR and/or the Heimlich maneuver.
- Conduct a "recall roundup" to check for recalled items at secondhand and thrift stores, and childcare centers. Watch for toys that could be choking hazards, especially for infants and toddlers (your local Consumer Product Safety Commission office can help with this).
- Check to make sure that the school cafeteria takes into account choking hazards when

- deciding on school lunch menu items, especially for younger students.
- Make sure that playground equipment is free of suffocation and strangulation hazards.
- Support suicide prevention programs (see Suicide chapter).

## Number of Injuries<sup>2</sup>

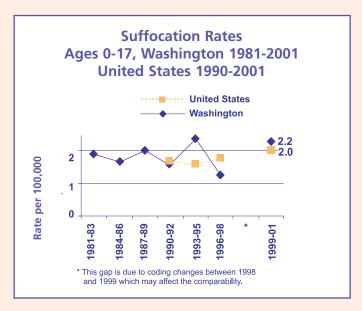
During 1999-2001, suffocation was the second leading cause of injury death for Washington children 0-17 years old. Suffocation injuries to Washington children 0-17 years old account for an annual average of:

- 33 deaths.
- 63 hospitalizations.
- About 420 visits to a hospital emergency department.

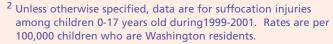
#### Time Trends<sup>3</sup>

There was no change in the suffocation death rates for Washington children 0-17 years old, from the three-year time period of 1981-83 to 1999-2001.

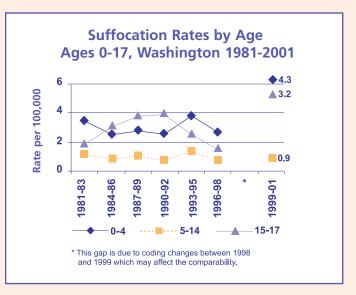
Suffocation rates among Washington children have been similar to national rates since 1990<sup>4</sup>.



From the three-year time period of 1981-83 to 1999-2001, there has been no change in suffocation death rates in any of the age groups (0-4, 5-14, and 15-17).



<sup>&</sup>lt;sup>3</sup> See Comparability Ratio section in Appendix D.



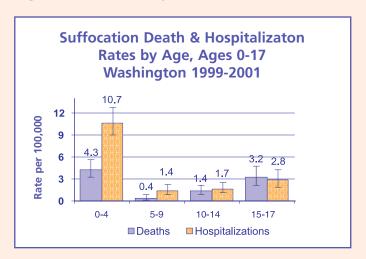
#### Intent

For Washington children 0-14 years old, the majority of suffocation deaths (75 percent) and hospitalizations (96 percent) were unintentional.

For teens (15-17 years old), the majority of suffocation deaths (80 percent) and many hospitalizations (50 percent) were self-inflicted injuries.

## **Age and Gender**

The highest suffocation rates for Washington children were among those 0-4 and 15-17 years old. The suffocation hospitalization rate was highest for those 0-4 years old.



Males had a suffocation death rate that was two times higher than females; males 15-17 years old had a suffocation death rate that was five times higher than females. There was no statistically significant difference in hospitalization rates between males and females.

<sup>&</sup>lt;sup>4</sup> National injury death rates for children 0-17 years old are not available prior to 1990.

Local child death review teams reviewed 81 out of the 99 suffocation deaths during 1999-2001. Key findings include:

- Deaths in infants were more likely to be unintentional, while deaths among teens were more likely to be self-inflicted.
- Teams concluded that 70 percent of the 81 suffocation deaths were preventable, 14 percent were not preventable, and the teams were unable to determine preventability for 16 percent of the deaths.

#### **Infants**

- Twenty-four (86 percent) of the infant suffocation deaths were unintentional, two (7 percent) were homicides, and two (7 percent) were of undetermined intent.
- The suffocation deaths of infants most commonly occurred while sleeping. Infants suffocated by either being wedged between the bed and a wall or pillow, or parental overlay.
- Of the 22 infants who died of suffocation while sleeping, 20 (91 percent) were cosleeping with a parent or sibling at the time of their death. Fifteen of these deaths were due to overlay by an adult or sibling.
- Twelve of the 20 co-sleeping infants (60 percent) had at least one of these risk factors<sup>5</sup>: co-sleeping on a couch (seven of the deaths) and/or alcohol and/or other drug use by the parent (six of the deaths).
- A recalled playpen contributed to one infant death.
- Impairment by or use of alcohol and/or other drugs was noted in nine of the 28 infant deaths (32 percent). The supervisor was impaired in eight deaths and the infant was impaired in one death.<sup>6</sup>

### Children 1-14 years old

- Twenty-one (70 percent) of the 30 suffocations deaths reviewed for children ages 1-14 were unintentional, six (20 percent) were suicides, one (3 percent) was a homicide, and two (7 percent) were of undetermined intent.
- The most common causes of unintentional suffocation in this age group were hanging and choking, either on food or a foreign body.
- Product safety was associated with three deaths. The products include a car window, recalled playpen, and beanbag chair with a zipper.
- One suffocation death in this age group was related to sexual hanging.
- One death occurred while sleeping due to parental overlay.
- Impairment by or use of alcohol and/or other drugs was noted in three of the 30 deaths (10 percent) to children ages 1-14. The child was impaired in all three deaths.<sup>6</sup>

#### **Teens**

- Local teams reviewed 23 suffocation deaths for youth ages 15-17. The majority (74 percent) of these deaths were suicide by hanging. One death (4 percent) was unintentional, one (4 percent) was a homicide, and three (13 percent) were of undetermined intent.
- Two of the suffocation deaths were related to drug use with plastic bags.
- One suffocation death in this age group was related to sexual hanging.
- Impairment by or use of alcohol and/or other drugs was noted in five teen deaths (22 percent). The youth was the one impaired in all five of the deaths<sup>6</sup>.

<sup>&</sup>lt;sup>5</sup> Death may have had more than one risk factor.

<sup>&</sup>lt;sup>6</sup> Persons impaired may total more than the number of deaths because more than one party could have been impaired.